

Brief Clinical Report

Male to Male Transmission of Supernumerary Nipples

Masato Tsukahara,^{1*} Masashi Uchida,² Sachiko Uchino,¹ Reiko Fujisawa,¹ Toshiaki Kamei,³ and Takanori Itoh⁴

¹School of Allied Health Sciences, Yamaguchi University, Ube, Japan

²Department of Pediatrics, Tokuyama Central Hospital, Tokuyama, Japan

³Department of Pathology, Yamaguchi Central Hospital, Hofu, Japan

⁴Department of Plastic Surgery, Yamaguchi Central Hospital, Hofu, Japan

We report on a father and his son with supernumerary nipples. No male-to-male transmission has previously been described with this trait. This observation confirms that this trait is inherited in an autosomal dominant fashion. Am. J. Med. Genet. 69: 194–195, 1997. © 1997 Wiley-Liss, Inc.

KEY WORDS: autosomal dominant inheritance; male to male transmission; supernumerary nipples

INTRODUCTION

Supernumerary nipples (MIM 163700) are well-known 'atavistic' structures presumed to have been present in a phylogenetic ancestor. The trait seems to be inherited in an autosomal dominant fashion. However, no instance of male-to-male transmission of this trait has been demonstrated thus far. We would like to report a family with male to male transmission of the trait.

CLINICAL REPORT

The proband, a 3-year-old Japanese boy, was seen because of left supernumerary nipples. Physical examination showed a supernumerary nipple below the normal left nipple (Fig. 1). The lesion consisted of a nipple and surrounding brown areola. He was phenotypically

and mentally normal. A urinalysis was normal. Ultrasonography of the abdomen revealed neither abnormalities of the kidney nor of the urinary tract. The lesion was excised at age 3½ years.

The father of the proband had a supernumerary nipple on the right which was first noticed at age 12 years and regressed gradually with age. Ultrasonography of the father showed no abnormalities. On the father's side, the grandparents did not have supernumerary nipples. The mother and younger brother of the proband did not have supernumerary nipples.

DISCUSSION

Supernumerary nipples are present in 0.22%–5% of people among various ethnic groups (see Leung [1988] for references). Most cases are sporadic. In 1988, Leung reported supernumerary nipples in a Chinese family in which father and his identical twin daughters manifested accessory nipples (polythelia). Several other familial cases have been reported [Marie, 1893; Birkenfeld, 1932; Graham-Campbell, 1936; Rintala and Norio, 1982], some with supernumerary breast tissue (polymastia) [Klinkerfuss, 1924; Weinberg and Motulsky, 1976]. The inheritance pattern of these familial cases is compatible with that of a single autosomal dominant gene with variable expressivity. However, no instance of male-to-male transmission of this trait has been so far demonstrated as pointed out by Leung [1988].

Together with the previous reports, the occurrence of supernumerary nipples in a father (an accessory nipple) and his son (an accessory nipple and areola) suggests that the trait is inherited in an autosomal dominant fashion with variable expressivity. Careful examination of relatives of an individual with supernumerary nipples is recommended for genetic counseling. Renal studies may be warranted [Robertson et al., 1986; Meggyessy and Mehes, 1987; Mehes, 1996].

ACKNOWLEDGMENTS

This work was supported in part by Grant-in-Aid for Scientific Research (C) 08670892 from The Ministry of

Contract grant sponsor: The Ministry of Education, Science, Sports and Culture of Japan; Contract grant number: 08670892; Contract grant sponsor: The Ministry of Health and Welfare of Japan.

*Correspondence to: Masato Tsukahara, M.D., School of Allied Health Sciences, Yamaguchi University, Ube, Yamaguchi-Keu 755, Japan.

Received 26 April 1996; Accepted 30 July 1996



Fig. 1. The propositus showing supernumerary nipples.

Education, Science, Sports and Culture of Japan (M.T.) and by a Grant-in-Aid from The Ministry of Health and Welfare of Japan (M.T.).

REFERENCES

- Birkenfeld W (1932): Beitrag zur Zwillingspathologie der Mamma. Arch Klin Chir 168:568–576.
- Graham-Campbell R (1936): Polythelia. Br Med J 1:141.
- Klinkerfuss GH (1924): Four generations of polymastia. JAMA 82:1247–1248.
- Leung AKC (1988): Familial supernumerary nipples. Am J Med Genet 31:631–635.
- Marie P (1893): Mammelon surnuméraire transmis héréditairement dans une famille; Coincidence avec plusieurs grosseuses gemellaires. Bull Mém Soc Méd Hôp Paris 18:457–459.
- Meggyessy V, Méhes K (1987): Association of supernumerary nipples with renal anomalies. J Pediatr 111:412–413.
- Méhes K (1996): Familial association of supernumerary nipples with renal cancer. Cancer Genet Cytogenet 86:129–130.
- Rintala A, Norio R (1982): Familial intra-areolar polythelia with mammary hypoplasia. Scand J Plast Reconstructive Surg 16:287–291.
- Robertson A, Sale P, Sathyanarayan C (1986): Lack of association of supernumerary nipples with renal anomalies in black infants. J Pediatr 109:502–503.
- Weinberg SK, Motulsky AG (1976): Aberrant axillary breast tissue: a report of a family with six affected women in two generations. Clin Genet 10:325–328.